PLUG-IN 2-OUTPUT TYPE Signal/Sensor/AC transducer

Product	Type code	Outlines	Withstand voltage
Isolator	WTP2 -☐	Converts a DC input signal into a unified signal which was isolated.	AC2000V
Distributor	WDTP2 -C7	Supplies electric power to a 2-wire transmitter and converts signal from the transmitter into a proportional DC signal.	AC2000V
Distributor with square root extraction	WSRDTP2-C7	Supplies electric power to a 2-wire transmitter and converts signal from the transmitter into a DC signal which was proportional to the square root of the signal.	AC2000V
Thermoelectric temperature transducer	WHTP2 -	Converts thermal electromotive force of a thermocouple into a DC signal which was proportional to temperature.	AC2000V
Resistance temperature transducer	WRHTP2-	Converts resistance of a 3-wire thermal resistance into a DC signal which was proportional to temperature.	AC2000V
Potentiometer transducer	WRTP2 -Z	Outputs a DC signal which was proportional to resistance of a potentiometer.	AC2000V
AC current transducer	WAETP2 -	Outputs a DC signal which was proportional to RMS value of an AC current input.	AC2000V
AC voltage transducer	WVETP2 -	Outputs a DC signal which was proportional to RMS value of an AC voltage input.	AC2000V
Frequency transducer	WFTP2 -	Outputs a DC signal which was proportional to frequency.	AC2000V

Soft spec type

Product	Type code	Outlines	Withstand voltage
Adding/subtracting transducer	CADTP1 -☐	Does adding and subtracting of three inputs, and then outputs a DC signal equivalent to the value. Parameters can be changed by CCM-1.	AC1500V
Multiplying/dividing transducer	CMLTP1 -☐	Does multiplication and division of three inputs, and then outputs a DC signal equivalent to the value. Parameters can be changed by CCM-1.	AC1500V
Temperature/pressure correcting transducer	CLTP1 -☐	Processes temperature/pressure condition and converts it into a DC signal which was proportional to flow rate. Parameters can be changed by CCM-1.	AC1500V
Function generating transducer	CFGTP1 -☐	Does broken line operation of a DC input 15 polygonal lines maximum. Parameters can be changed by CCM-1	AC1500V
Analog backup transducer	CAMTP1 -☐	Provides output with a backup when a computer or a PID controller was down. Follow-up movement and output backup are settable by CCM-1.	AC1500V
Voltage pulse transducer	CVFTP1 -☐	Outputs a pulse of frequency which was proportional to a DC input. Pulse frequency, pulse width and output cut against a low input are settable by CCM-1.	AC1500V

Alarm setter

Product	Type code	Outlines	Withstand voltage
Alarm setter (digital % scale)	SDD- -105 -☐	Compares a preset value of digital % scale with a direct input signal, and outputs a contact signal.	AC1500V
Alarm setter (actual scale)	SD- -105 -☐	Compares value of an actual scale setter with a direct input signal, and outputs a contact signal.	AC1500V
Alarm setter (LCD)	SDLC-105-☐	Compares a preset value with a direct input signal, and then outputs a contact signal. 4 digit LCD indication. Actual scale indication is settable.	AC2000V
Deviation alarm setter (LCD)	SDDV-105-☐	Compares deviation between two DC signal inputs and deviation of each input with a preset value, and then outputs a contact signal.	AC2000V
AC voltage alarm setter	SVD- -105 -	Inputs AC voltage and outputs a contact signal	AC2000V

Common standard specifications

High quality/high reliability

Highly reliable electronic parts are adopted.

Aging tests of each part as well as burn-in aging test of the product under a high temperature are implemented.

PCB treatment

In order to reinforce insulation resistance stability of PCB surfaces and prevent the surfaces from insulation deterioration, B side of the PCB was cleaned and coated with high humidity resistant varnish after parts installation.

Output limiter circuit

Even if an excessive input is applied, the product confines the output to about 1.5 times of rating and protects the output side equipments.

Item	Specification	
Tolerance	% against output span	
Influence of temperature	23± 10 tolerance %	
Influence of frequency	45-65Hz tolerance % (Reference) IEC, rated Hz±10% tolerance %	
Characteristics	In conformity with JIS C 1111-1989 in tolerance	
Response time	Time it takes to fall within ±1% of the final steady-state when applied a stepped input. Standard : 1.0. sec. (Insulation transducer only: 0.5 sec.)	
Output ripple	1%p-p against output span	
External adjustment of output	± 5% adjustable	
Auxiliary supply	AC100V or AC200V ±10% (50, 60Hz) (DC100/110V is manufacturable only for TP2)	
Overvoltage	Input	2 times (10 sec.), 1.2 times (continuity) of rated voltage
	Aux.supply	1.5 times (10 sec.), 1.1 times (continuity) of rated voltage
Over current	AC transducer	40 times (1 sec.), 20 times (4 sec.) 10 times (16 sec.), 1, 2 times (continuity) of rated current
	Signal transducer	10 times (5 sec.)
Insulation resistance	Between input terminal, output terminal, (auxiliary supply terminal) and outer case (earth) 50M at DC500V. Non-insulation type: input terminal and output terminal conducted.	
Material of outer case	Fire-retardant ABS resin	
Appearance color	Outer case	Black (N 1.5)
	Rating plate	Dark blue (5PB 2/6)
Operating temperature/ humidity range	-10- 55 , 30-85%RH	
Storage temperature range	-40- 70	

Type code designation

1 output type

Signal transducer

(1)   P   (2)   –   (3)   (4)   (5)

§ PLUG-IN TRANSDUCER §

COMMON STANDARD SPECIFICATION/TYPE CODE DESIGNATION

(1) Product (kind of conversion)

Mark	Product (kind of conversion)	Mark	Product (kind of conversion)
T	Isolator	CRT	Constant response (constant speed response)
HST	Ultrahigh speed isolator	AMT	Analog memory
DT	Distributor	T***L	Isolator with lower limiter
LT	Linearizer	RVT	Reverse isolator
SQT	Square	VFT	Analog pulse
SRT	Square root extraction	R	Signal switch
MT	Multiplying	UGT	Ultraslow pulse
DIT	Dividing	PRT	Pulse rate
ALT	Analog limiter	PPT	Pulse isolator (2-output)
ADT	Adding		

(2) Dielectric strength voltage

Mark	Dielectric strength voltage (50/60Hz)
None	Non-insulation
1	AC1,500V between input/output, for 1 min.
2	AC2,000V between input/output, for 1 min.

(3) / (4) / (5) Specification code

Input/output/auxiliary supply

Sensor transducer

| (1) | TP | (2) | – | (3) | (4) | (5) |

(1) Product (kind of input)

Mark	Product (kind of input)
H	Thermoelectric temperature
RH	Resistance temperature
R	Potentiometer
G	Revolution-speed (Frequency proportion)
GV	Revolution-speed (Voltage proportion)
S	Selsyn
SH	Thermoelectric alarm
SRH	Platinum alarm

(2) Dielectric strength voltage

Mark	Dielectric strength voltage (50/60Hz)
1	AC1,500V between input/output, for 1 min.
2	AC2,000V between input/output, for 1 min.

(3) / (4) / (5) Specification code

Kind of thermocouple, input, output, power source
Kind of thermal resistance, input, output, power source
Input, output, power
Input, normal operating voltage, output, power source

AC transducer

| (1) | P2 | – | (2) | (3) | (4) |

(1) Product (kind of input)

Mark	Product (kind of input)
V	AC voltage (with waveform compensation, load fixation, need no power source)
VT	AC voltage (with waveform compensation, need no power source)
VET	AC voltage (RMS value)
A	AC current (with waveform compensation, load fixation, need no power source)
AT	AC current (with waveform compensation, need no power source)
AET	AC current (RMS value)
FT	Frequency

Dielectric strength voltage

AC2,000V(50/60Hz) between input/output, for 1 min.

(2) / (3) / (4) Specification code

Input, output, power

DC power transducer

| DWP1 – | (1) | (2) | (3) | (4) | (5) |

Dielectric strength voltage

AC1,500V(50/60Hz) between input/output, for 1 min.

(1) / (2) / (3) / (4) / (5) Specification code

Electric power, input 1, input 2, output, power source

2-output type

Signal transducer

W (1) P (2) – (3) (4) (5) (6)

(1)Product (kind of conversion)

Mark	Product (kind of conversion)
T	Isolator
DT	Distributor
SRDT	Square root extraction distributor

(2) Dielectric strength voltage

Mark	Dielectric strength voltage (50/60Hz)
2	AC2,000V between input/output, for 1 min.

(3) / (4) / (5) / (6) Specification code

Input, output, power source

Sensor transducer

W (1) P (2) - (3) (4) (5) (6) (7)

(1)Product (kind of input)

Mark	Product (kind of input)
HT	Thermoelectric temperature
RHT	Resistance temperature
RT	Potentiometer

(3) / (4) / (5) / (6) / (7) Specification code

Kind of thermocouple, input, output, power source
Kind of thermal resistance, input, output, power source
Input, output, power
Input, normal operating voltage, output, power source

(2)Dielectric strength voltage

Mark	Dielectric strength voltage (50/60Hz)
2	AC2,000V between input/output, for 1 min.

AC transducer

W (1) P (2) – (3) (4) (5) (6) (7)

(1)Product (kind of input)

Mark	Product (kind of conversion)
VET	AC voltage (RMS value)
AET	AC current (RMS value)
FT	Frequency

(2) Dielectric strength voltage

Mark	Dielectric strength voltage (50/60Hz)
2	AC2,000V between input/output, for 1 min.

(3) / (4) / (5) / (6) / (7) Specification code

Input, rated voltage (current), output, power source

Soft spec. type

Signal transducer

C (1) P (2) – (3) (4) (5)

(1)Product (kind of conversion)

Mark	Product (kind of conversion)
ADT	Adding/subtracting
MLT	Multiplying/dividing
LT	Temperature/pressure correction
FGT	Function generating
AMT	Analog backup
VFT	Voltage pulse

(2) Dielectric strength voltage

Mark	Dielectric strength voltage (50/60Hz)
1	AC1,500V between input/output, for 1 min.

(3) / (4) / (5) Specification code

Input, output, power source

Programming unit
CCM-1

Common standard specifications

High quality/high reliability

Highly reliable electronic parts are adopted.
Aging tests of each part as well as burn-in aging test of the product under a high temperature are implemented.
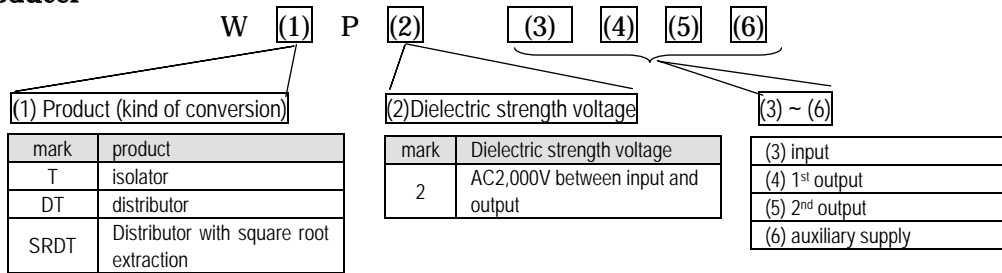
PCB treatment

In order to reinforce insulation resistance stability of PCB surfaces and prevent the surfaces from insulation deterioration, B side of the PCB was cleaned and coated with high humidity resistant varnish after parts installation.
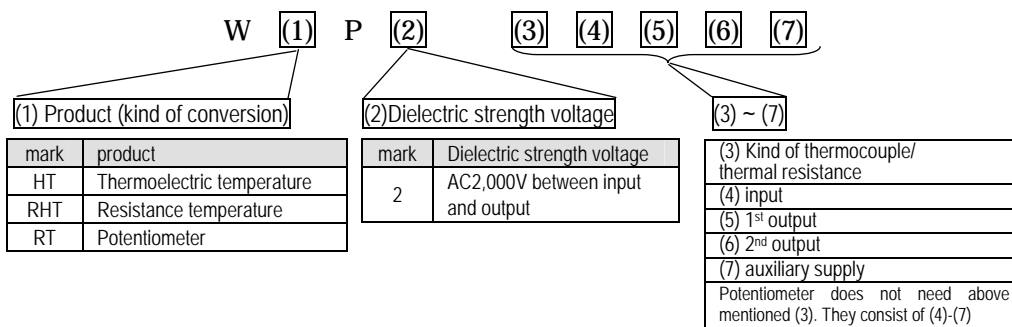
Output limiter circuit

Even if an excessive input is applied, the product confines the output to about 1.5 times of rating and protects the output side equipments.
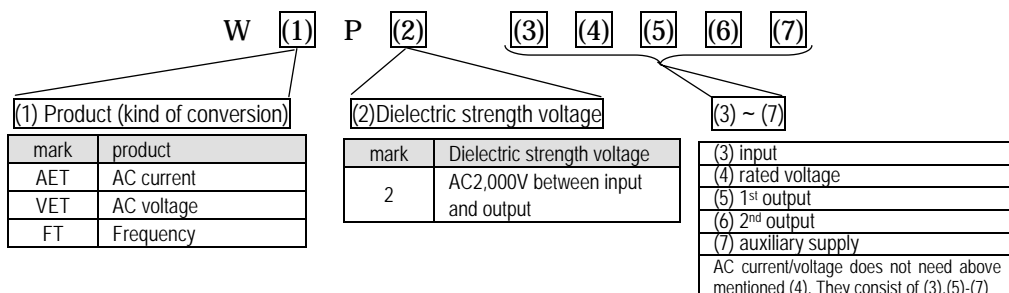
Type code designation

Signal transducer

W [(1)] P [(2)] [(3)] [(4)] [(5)] [(6)]

(1) Product (kind of conversion)		(2)Dielectric strength voltage		(3) (6)
mark	product	mark	Dielectric strength voltage	(3) input
T	isolator	2	AC2,000V between input and output	(4) 1st output
DT	distributor			(5) 2nd output
SRDT	Distributor with square root extraction			(6) auxiliary supply

Sensor transducer

W [(1)] P [(2)] [(3)] [(4)] [(5)] [(6)] [(7)]

(1) Product (kind of conversion)		(2)Dielectric strength voltage		(3) (7)
mark	product	mark	Dielectric strength voltage	(3) Kind of thermocouple/ thermal resistance
HT	Thermoelectric temperature	2	AC2,000V between input and output	(4) input
RHT	Resistance temperature			(5) 1st output
RT	Potentiometer			(6) 2nd output
				(7) auxiliary supply
				Potentiometer does not need above mentioned (3). They consist of (4)-(7)

AC transducer

W [(1)] P [(2)] [(3)] [(4)] [(5)] [(6)] [(7)]

(1) Product (kind of conversion)		(2)Dielectric strength voltage		(3) (7)
mark	product	mark	Dielectric strength voltage	(3) input
AET	AC current	2	AC2,000V between input and output	(4) rated voltage
VET	AC voltage			(5) 1st output
FT	Frequency			(6) 2nd output
				(7) auxiliary supply
				AC current/voltage does not need above mentioned (4). They consist of (3).(5)-(7)

Standard specifications

Item	Specification	
Tolerance	% against output span	
Influence of temperature	23± 10 tolerance %	
Influence of frequency	45-65Hz tolerance % (Reference) IEC, rated Hz±10% tolerance %	
Characteristics	In conformity with JIS C 1111-1989 in tolerance	
Response time	Standard 1 sec. (Signal transducer and AC transducer 0.5 sec.) Time it takes to fall within ±1% of the final steady-state when applied a stepped input.	
Output ripple	1%p-p against output span	
External adjustment of output	± 5% adjustable	
Auxiliary supply	Depends on individual specifications.	
Overvoltage	input	2 times (10 sec.), 1.2 times (continuity) of rated voltage
	Aux.supply	1.5 times (10 sec.), 1.2 times (continuity) of rated voltage
Over current	AC transducer	20 times (1 sec.), 1, 2 times (continuity) of rated current
	Signal transducer	10 times (5 sec.), 1, 2 times (continuity)
Insulation resistance	Between input terminal, output terminal, auxiliary supply terminal and outer case (earth) 50M at DC500V	
Material of outer case	Fire-retardant ABS resin	
Appearance color	Outer case	Black (N 1.5)
	Rating plate	Dark blue (5PB 2/6)
Operating temperature/ humidity rang	-10- 55 , 5-90%RH (no condensation)	
Storage temperature range	-40- 70	

Dimensions (mm)

Fig.1

Main body   8-pin type

Socket (Type code: 8PFA by OMRON)

Also compatible with the following socket:
Type code: 8PFA-W by Omron

*1: accessory for thermoelectric
    temperature transducer
*2: diode unit for current transducer

Fig.2

Main body   8-pin type

Socket (Type code: 8PFA by OMRON)

Also compatible with the following socket:
Type code: 8PFA-W by Omron

Fig.3

Main body   11-pin type

Socket (Type code: 11PFA by OMRON)

Also compatible with the following socket:
Type code: 11PFA-W by Omron
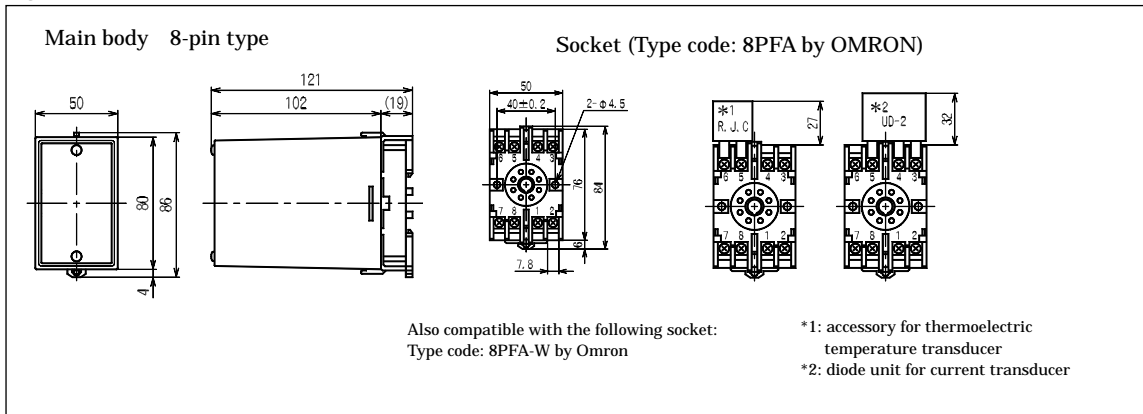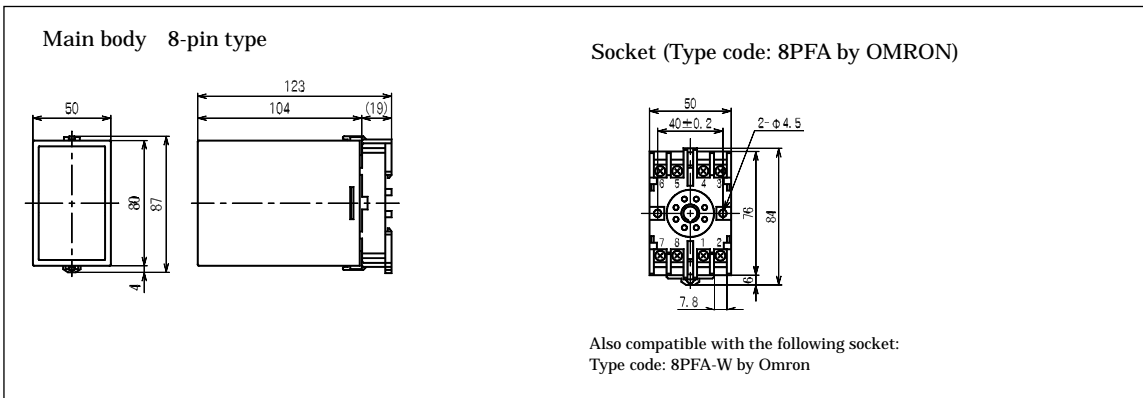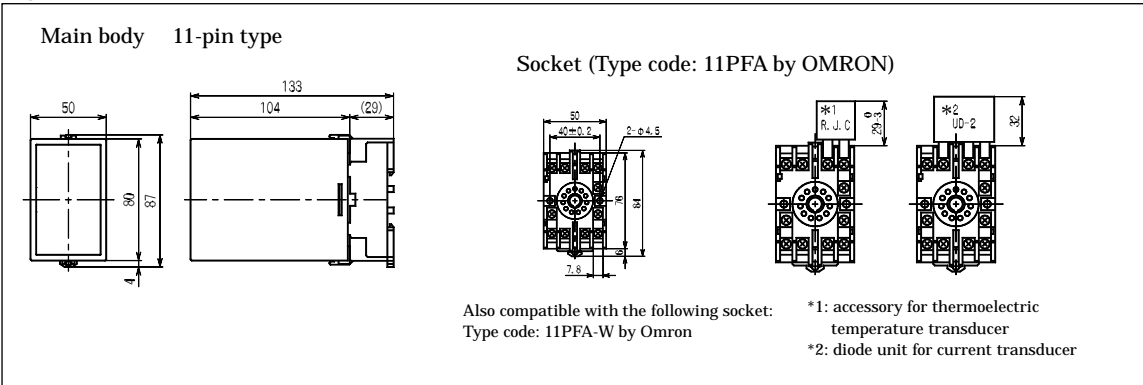
*1: accessory for thermoelectric
    temperature transducer
*2: diode unit for current transducer

Multiple unit installation (mm)

Panel mounting

Rail mounting

2-M4screw

In consideration of radiation of heat by a natural convection of air, please establish metric spaces more than those mentioned above.

Use a DIN standard 35mm rail.

Multiplier (DM-1)

2-φ3.5

4-M4screw